JOEL IVÁN SOLÍS

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EDUCATION

Massachusetts Institute of Technology *Jun 2014 - Jun 2018*
B.S. in Mathematics & Physics *Minors in Economics & Computer Science*

EXPERIENCE

HealthPlanOne Apr 2024 - Present
Senior Data Engineer *Remote*

- Reduced the ingestion latency of SQL Server data for our primary business line by 95% to enable real-time decision making for our marketing stakeholders
- Designed a Star Schema for our secondary lines of business and constructed the dbt models in accordance with a Medallion Architecture design pattern
- Designed and implemented a fault-tolerant offline conversion upload pipeline for Google Ads and Bing Ads, complete with an internal record of uploaded conversions for auditing purposes

Tinuiti Apr 2022 - Mar 2024
Data Engineer II *Remote*

- Built a CI/CD framework using DynamoDB, GitHub Actions, and a Fivetran API wrapper written in Python to streamline creation and management of our S3 data lake connectors
- Migrated ingestion of Facebook, LinkedIn, Search Ads 360, and Snapchat ad data from a legacy ETL provider to Fivetran, which allowed our CTO to cancel the previous contract and ultimately save Tinuiti millions of dollars per annum
- Improved the reliability of an error-prone data pipeline handling encrypted first-party data by refactoring its decryption logic and porting it to Amazon Glue, resulting in Redshift loads finishing 75% faster and reducing job failures to less than once a year
- Modernized Tinuiti's underlying data platform by moving analytic logic out of costly and unmaintainable Tableau Prep Flows and into a business-conformed data mart in dbt

Datto Oct 2020 - Mar 2022
Data Engineer II *Remote*

- Migrated our data warehouse from an on-premises monolithic MySQL instance, Spark cluster, and Airflow scheduler to a cloud implementation on AWS using Snowflake, EMR, and MWAA
- Bolstered the engineering capabilities of the Data & Analytics team by designing a dbt development workflow that enables analysts without software engineering backgrounds to version their SQL, test the code, and submit their work for production deployment all within VS Code

Insight Data Science Jan 2020 - Jul 2020
Program Director, Data Engineering *Boston, MA*

- Introduced a cohort of 17 former academics into the data engineering industry by teaching them about distributed computing frameworks and provided mentorship as they developed their own scalable data pipeline in 3 short weeks
- Deployed an 11-node arbitrage monitoring cluster on AWS using Kafka, Spark, and Cassandra to stream live cryptocurrency trades from the WebSocket endpoints of 5 different cryptocurrency exchanges

CyberMath Academy Jul 2019 - Jan 2020
Programming Instructor *Cambridge, MA*

- Taught Java to 10 gifted secondary school students from across the United States and abroad as part of a 12-day summer camp held at the Harvard campus
- Led weekly Python programming courses to introduce basic computer science concepts like object-oriented programming and computational complexity

DSV Solutions Sep 2018 - Apr 2019
Business Analyst *Los Indios, TX*

- Updated the master log file in our receiving department to display relevant KPIs and sourced information from the log to populate the daily control board, reducing the time warehouse employees spent on data entry by 50%
- Built a reporting pipeline in MS Access and Excel to automate weekly payroll reports and demonstrate to the client how the site's cost-saving initiatives reduced the monthly invoice by tens of thousands of dollars per annum
- Provided Human Resources with a dashboard that uses employee turnover data from 2016 to 2018 to determine seasonal patterns, why employees are leaving, and which departments are the most affected
- Redesigned data entry UIs so warehouse associates could more effectively record each departments' performance, help management monitor their supervisors' daily productivity against history, and hold them accountable for day-to-day changes
- Designed an Access DBMS to record preparation and loading times for our shipping department, instructed warehouse employees on data entry and performance monitoring, and implemented changes and additional features based on user feedback

Episcopal Day School September 2018 - December 2018
Teaching Assistant *Brownsville, TX*

- Partnered with an MIT class of '98 alum to pilot weekly coding classes in our hometown, where we taught elementary school students of varying ages how to play and design games in Scratch, Coffeescript, and Python

Sonar Trading Jun 2018 - Aug 2018
MISTI Intern *México D.F., México*

- Developed an object-oriented ETL framework in Python to fetch assets, trades, and open orders from the REST endpoints of 25 cryptocurrency exchanges and load the market data into a PostgreSQL database for analysis

SLAC National Accelerator Laboratory June 2017 - August 2017
SULI Student *Menlo Park, CA*

- Created an Access DBMS for alignment measurements of SLAC's particle accelerators to replace the Metrology department's obsolete DBMS, facilitate searches for accelerator components, and perform coordinate transformations on the measurements

UTRGV Center for Gravitational Wave Astronomy June 2016 - August 2016
REU Student *Brownsville, TX*

- Wrote a Wolfram Language Script that generates an image of any regular tesellation of the Poincaré disk when given its corresponding Schläfi symbol as input
- Presented a lecture and poster on said images to explain how they could be generated using only plane geometry and complex numbers
- Participated in the university's scientific outreach initiative by giving a talk on the RSA cryptosystem and Shor's algorithm to Brownsville residents

MIT Kavli Institute for Astrophysics & Space Research May 2015 - January 2016
UROP Student *Cambridge, MA*

- Designed a Cron job which performs Kolmogorov-Smirnov tests between consecutive 12-hour intervals of time to determine if the noise detected by the LIGO interferometers has a statistically distinguishable day/night cycle

Microsoft Research New England January 2015 - May 2015
UROP Student *Cambridge, MA*

- Created an optimization script to find optimal binary codes in low dimensions as part of a research program on dense sphere-packings and optimal error-correcting codes

REFERENCES

Tejas Marvadi tmarvadi@hpone.com
Data Engineering Manager at HealthPlanOne and Datto

Michael Dunn dunnjr.michael@gmail.com
Director of Data Engineering at Tinuiti